

**Canon**

***XLH1***

**SPECIFICATIONS**

**XLH1**

PRODUCT FEATURE	RANGE / SPECIFICATION / COMMENT
<b>INCLUDED LENS</b>	
20x HD video zoom lens	12 elements, 10 groups, 2 aspherical lenses with Fluorite and High Refraction Glass, SR Coating
Lens Mount	Canon XL interchangeable mount system
Zoom Range	5.4-108mm, (38.9-778 mm in 35mm photography)
Zoom Control	manual ring on lens, power zoom top handle - constant (16 speed levels selectable), zoom handle - variable/constant (multi level adjustment 16 speeds)
Zoom Display	zoom bar, zoom position (0-99)
Maximum Aperture	f/1.6 to 3.5 through zoom range
Aperture Diaphragm	6 leaves, iris diaphragm
Display of Focus Distance	Feet or Meters (mounted on XL-H1 only in Manual Focus)
Manual Auto focus	AF/M switch
one-push AF	Yes
Minimum Focus distance 2	0mm wide expanding to 1m entire zoom range
Super-Range Optical Image Stabilizer (featuring Canon's Vari-Angle Prism)	both physical camcorder motion and CCD feedback system
Focus Preset Memory	one
Zoom Preset Memory	one
Built-in Neutral Density Filters	1/6 (density 0.8), 1/32 (density 1.5)
Mechanical Shutter	Yes (for still shooting)
Flange Back Adjustment	Manual / Automatic
Filter Diameter	72mm, P=0.75mm
number of f/stops (Av mode)	27 f/stops (f/1.6 to f/16)
<b>IMAGE SENSORS AND DSP</b>	
3 - 1/3", 16:9 CCDs	
1.67M pixels each (1440 x 1080 effective per CCD)	
Digic DV II HD DSP for HD video and stills	
<b>VIDEO FORMAT</b>	
1080, 50i/60i recording format	optional upgrade to 50i/60i operation is done by Canon Factory Service Center (standard operation 60i)
Frame Rates	60i 60i, 30F, 24F
Frame Rates	50i 50i, 25F
SD recording	16:9, 4:3 either 480 or 576
HDV recording	16:9, 1080
<b>PROFESSIONAL JACKPACK</b>	
HD-SDI (SMPTE 292M, ITU-R BT.656) & SD-SDI (SMPTE 259M)	1 BNC out
Gen-lock (SMPTE)	1 BNC in
Time Code (SMPTE)	1 BNC in, 1 BNC out
<b>INTERFACE JACKS</b>	
LANC	
IEEE1394	HDV/DV, 4 pin; HDV format (MPEG2 TS), SD format DV stream, possible to downconvert HDV to SD stream
EVF Terminals	Color (XL-H1 EVF only), B&W (FU-1000):no power adapter needed (only one EVF can be used)
Video Composite	(SD in/out), S-Video (SD in/out), Component (out, 60i-1080i/480, 50i- 1080i/576), all outputs are live output during recording and playback
Headphone Terminal	3.5mm jack with volume control
Advanced Accessory Shoe	optional MA-300, Canon E-TTL Speedlite: 420EX/430EX/550EX/580EX
Power	any BP-900 series battery, AC adapter or Car battery adapter

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<b>OVERALL IMAGE SETUP (ALL ITEMS INDIVIDUALLY ADJUSTABLE)</b>	
settings marked with an * can be stored as a Custom Preset (6 stored presets in camera plus 20 stored presets on memory card)	
Gamma *	3 settings (normal, cine 1, cine 2)
Knee *	4 settings (auto, high, middle, low)
Black *	3 settings (stretch, middle, press)
Master Pedestal *	19 settings (-9 to +9)
Setup Level *	19 settings (-9 to +9)
Sharpness *	19 settings (-9 to +9)
Horizontal Detail Frequency (H DTL) *	3 settings (high, middle, low)
Horizontal/Vertical Detail Balance (DTL H/V) *	19 settings (-9 to +9)
Coring *	19 settings (-9 to +9)
Noise Reduction 1 *	4 settings (off, high, middle, low)
Noise Reduction 2 *	4 settings (off, high, middle, low)
Color Matrix *	3 settings (normal, cine 1, cine 2)
Color Gain *	19 settings (-9 to +9)
Color Phase *	19 settings (-9 to +9)
Master Red Gain *	19 settings (-9 to +9)
Master Blue Gain *	19 settings (-9 to +9)
Master Green Gain *	19 settings (-9 to +9)
R-G Matrix *	19 settings (-9 to +9)
R-B Matrix *	19 settings (-9 to +9)
G-R Matrix *	19 settings (-9 to +9)
G-B Matrix *	19 settings (-9 to +9)
B-R Matrix *	19 settings (-9 to +9)
B-G Matrix *	19 settings (-9 to +9)
Program AE	Auto, Tv (shutter Value), Av (Aperture Value), Manual, Spotlight, Night, Easy Record (Green Mode)
Program AE Metering	Center weighted average except for Spotlight (128 segment Evaluative Photometry)
AE Shift	13 settings (-2 to +2, in 0.25 increments)
AE Lock	Yes (Auto, TV, Av modes)
Gain	-3dB, Auto, 0dB, +3dB, +6dB, +12dB, +18dB
White Balance	Auto, Set (2 memories Outdoor (5600K), Indoor (3200K), 128 segment metering TTL; Variable Color Temperature adjustment(2800K to 12,000K in 100K increments)
Aperture Settings (Manual, Av Mode)	20 levels - depending on zoom position: F/1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.2, 3.4, 3.7, 4.0, 4.4, 4.8, 5.2, 5.6, 6.2, 6.7, 7.3, 8.0, 8.7, 9.5,
Shutter Speeds 60i (Manual, Tv Mode)	13 levels (1//4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/250, 1/500, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/15000)
Shutter Speeds 50i (Manual, Tv Mode)	13 levels (1/3, 1/6, 1/12, 1/25, 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000)
Shutter Speeds 30F (Manual, Tv Mode)	13 levels (1//4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/250, 1/500, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/15000)
Shutter Speeds 24F (Manual, Tv Mode)	14 levels (1/3, 1/6, 1/12, 1/24, 1/48, 1/60, 1/100, 1/250, 1/500, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/15000)
Clear Scan	60i from 60.1Hz to 203.9Hz (100 levels), 50i from 50.2 to 200.3Hz (127 levels)
Skin Detail	adjustable: Area, Y Level, Hue, Chroma, Detail Adjustment (off, low, normal, high)

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<b>STILL IMAGE RECORDING</b>	
Storage System	SD (Secure Digital) or MultiMediaCard (MMC) memory card
Image Size	1920x1080, 1440x1080, 640x480, 848x480, JPEG compression
2 Photo Modes	Video (Video color space), Camera (Digital camera color space)
Video Color Space	Concurrent Recording with Recording Video, Meta Data (Custom Preset data, Time Code, EXIF data)
Digital Camera Color Space	No Video recording in this mode
Focus Priority Mode	on/off (Camera Mode Only)
Metering	evaluated, center weighted average, spot (Camera Mode Only)
Shooting Modes	single, continuous: 3fps, 5fps, max 30 to 60 images depending on image size (Camera Mode Only)
AEB (Auto Exposure Bracketing)	Yes
Flash Capability	Yes, optional Canon E-TTL Speedlite: 420EX/430EX/550EX/580EX (Camera Mode Only)
Capturing Still Image from Recorded Tape	Yes
Print Order Function	set print order and save to Memory Card
Playback of Still Images	slide show, zoom, jump
<b>AUDIO</b>	
HDV recording	2 channel MPEG1 Audio Layer II (48kHz, 384kbps), 4 channel MPEG2 Audio Layer II (48kHz, 384kbps)
SD Recording	2 channel PCM (48kHz, 16 bit or 32kHz, 12 bit), 4 channel PCM (32 kHz, 12 bit)
Locked Audio	locked, unlocked (DV mode only)
2 rear XLR jacks	mic and line level selectable (input only): can be used for Channel 1 and 2 or Channel 3 and 4 recording
Phantom Power (rear XLR jacks)	+48V on/off independent each XLR connector
2 addition audio inputs for 4 channel recording	uses optional MA-300 (mounts in Advanced Accessory Shoe)
RCA jacks (4 channel)	out / in
Independent Audio Level Controls	4 individual channel (Auto/Manual)
Front Mic (included)	electret condensor microphone, mono/stereo switchable (directivity 120 ° stereo, uni-directional mono)
Front Mic Jack	mini plug with 5v DC jack
Wind Screen	Yes, mnuue selectable (front supplied mic only)
Attenuation	front mic only, 20dB (on/off)
VU meters	EVF (superimposed), side informational LCD panel
Audio Monitor	selectable - channel 1 and 2, channel 3 and 4, channel 1, 3 and 2, 4
<b>INCLUDED EVF AND EVF DISPLAYS</b>	
2.4", 16:9, 215K pixels LCD	
Combination EVF/LCD	Color Viewfinder eyepiece adapter opens for LCD operation (LCD screen brightness increases when eyepiece adapter is open)
adjustments (physical)	forward/backward, left/right, rotational (90 degrees downward, 135 degrees upwards)
adjustments (picture)	4 adjustments (brightness, contrast, color, sharpness)
Diopter Range	+0.5 to -4.0
Visual Field of View	60i - approx. 94.5% H, approx. 97.5% V
Menu Languages	English, Chinese (simplified), Japanese
Audio level	bar indicator
Warning Lights	shutter, rec, gain
Focus Assist	peaking, magnify, distance measurement (feet / meters)
B&W mode	Yes
Data Code Display	date and time, shooting data
EVF display select	4 selectable levels of shooting data including clear (image only, no data)
H/V Image flip	Yes, EVF only through Custom Keys (non-Canon lenses and adapters)

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<b>FRAMING OVERLAYS</b>	
Zebra	70%, 75%, 80%, 85%, 90%, 95%, 100%
Safe Area	80%, 90%
Aspect guides	4x3, 13x9, 14x9, 1.66:1, 1.75:1, 1.85:1, 2.35:1
center mark	Crosshair (on/off)
level mark	on/off
<b>OVERALL CAMERA SETUP</b>	
Custom Keys	2 assignable buttons (Time Code, Index Write, Zebra, VCR Stop, TV Screen, TC Hold, Audio Level, EVF BW Mode, CP Reverse Index, Flange Back, Flip EVF)
Custom Presets	6 Custom Presets can be stored in the XL H1, 20 Custom Presets can be stored on the Memory Card, can be moved to another XL H1
CP Data	stored on Memory Card when a photo is taken
SMPTTE Time Code	drop/non-drop, free run, rec-run, t/c hold and user bit set
Color Bars / Tone	SMPTTE color bars with 1KHz tone (-12dB, -20dB)
World Clock	with Daylight Savings Time
Tally light	front and back (on/blink/off)
Remote Control Sensor	front and back (on/off)
DV Control on/off	
Power Save	leave camera powered, cassette standby mode (on/off after 3 minute pause)
Character Record	record EVF data permanently burned into image
Iris Dial Direction	selectable: up open or down open
Fader	white/black
Record Review	last 3 seconds of footage
End Search	end of last shot
Analog/DV Converter	analog SD to DV (IEEE1394) converter
Side Informational LCD Panel	format, Time Code, tape indication, battery, VU meter with backlight

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<b>OPERATING SPECIFICATIONS</b>	
Power Supply and Consumption	7.4V (battery pack), 7.8W (recording with autofocus, HD 20X LIS Lens mounted, HD mode)
Operating Temperatures	0-40 °C (32-104 °F)
<b>OPTIONAL ACCESSORIES</b>	
Console Software (remote control and recording software)	available from <a href="http://www.canondv.com">www.canondv.com</a>
3x Zoom Lens XL 3.4-10.2mm	user determined image acceptability in HD
16x Manual Zoom Lens XL 5.4-86.4mm	user determined image acceptability in HD
20x Zoom Lens XL 5.4-108m LIS	user determined image acceptability in HD (XL2 standard lens)
Extender XL 1.6x	multiply the focal length of a Canon XL lens by 1.6x
EF Adapter XL	allows the use of most Canon EF lenses (effective focal length multiplied by 8.8x (4:3), 7.2x (16:9))
FS-72U Filter Set	UV, ND, Circular Polarizing Filters
TA-100 Tripod Adapter	
MA-300 XLR adapter for 4 channel recording	
EOS Flash	420EX, 430EX, 550EX, 580EX
FU-1000 B&W EVF (CRT)	
System Case HC-3200	
Ratio Converter RC-72	
Shooting Brace SBR-1000	
Zoom Remote ZR-2000	
Remote Color Viewfinder Unit FU-2000	
CH-910 Dual Battery Charger	
CB-920 Car Battery Adapter	
Batteries	BP950G, BP970G, BP930, BP945, any BP900 series battery
<b>KIT CONTENTS</b>	
XL H1 Body	includes: lens, front lens cap, back dust cap, hood
HD 20x L IS II Lens	
16:9 Color EVF and microphone	worldwide voltage (100V AC to 240V AC)
CA-920 Compact Power Adapter	
DC-920 DC Coupler	
BP-950G Battery Pack	
WL-D5000 Wireless Controller (with 2 AA batteries)	
DTC-1000 D Terminal Component Cable	
RCA Stereo audio cable	
16M SD Memory Card	
SS-1000 Shoulder Strap	
Instruction Manual	
<b>WARRANTY</b>	
one year parts and labor	service by Canon Factory Service Center, call (800) 828-4040 for information